

4. In paragraph 7 of the office action, the examiner rejects claims 21-25 and 29-33 under 35 USC 103 based on the combination of DiTullio '925, Nichols '661 and Kothmann '892 patents. In the detail response below, first, applicants submit that

- (a) the motivation to combine which examiner cites is not present, and in fact there is contrary motivation;
- (b) the combination, if taught, would not be the invention;;
- (c) the rejection is based on combination of non-analogous arts of DiTuillo and Kothmann; and,
- (d) there is impermissible picking and choosing.

*There is a lack of motivation to combine*

5. At the office action Page 5, last full paragraph, the rejection of claims 21 and 29 says it would have been obvious to modify DiTullio's device in accord with Kothmann, to make DiTullio's perforations flare inwardly, since "The motivation would have been to preclude clogging of perforations by large soil particles". However, there is no indication from DiTullio or other prior art of any tendency for clogging in chambers of DiTullio or others.

DiTullio only mentions that particles may be present in the water (effluent) which is flowed into the chamber (Col. 2, line 11-13; Col. 5, line 26-30) and further says that "The perforations 60 facilitate flow of effluent out of the drainfield gallery." Col. 5, line 45-47. If DiTullio is flowing particles out, then how can there be a motivation to use Kothmann's slot configuration which aimed at particles flowing in? DiTullio is silent on any problems about particles flowing inwardly and clogging of the perforations. It is wrong to assume there are any.

Furthermore, skilled artisans know that if a DiTullio chamber, having round holes, is buried in soil (as compared to crushed stone) for leaching chamber use, it is necessarily covered with geotextile. See declaration of Brochu, paragraph 2. That factor negatives any need or motivation to shape perforation openings to avoid clogging from particles on the exterior -- which is what Kothmann is about.

The declaration of Brochu at Paragraph 6 provides further facts which negate that there is a clogging problem in general, and thus, that there could be any motivation to overcome clogging.

6. In further rejecting claims 21, 29, 32 at the bottom of page 5, continuing on to page 6, the rejection says that modification of the device of DiTullio to, have the perforation axes slope downwardly is obvious since “The motivation would have been to direct the effluent downwardly as it exits the exterior of the chamber.”

(a) Applicants request examiner to state where such is found, since they dispute that as a motivation. Such purported motivation is particularly off-point since the bottom of the chamber is open. The more obvious motivation is for holes in the sidewalls is to flow water sideways. Furthermore, given the low flows associated with chambers it is not obvious that down-sloped perforations would effect a direction of flow to the water any more than would gravity for any kind of hole.

(b) A DiTullio chamber is only feasibly made of sheet and by thermoforming. Col. 6, line 6-12. (Although there is in the text vague allusion to “many different methods”, that is not a teaching of any feasible alternative method and in fact applicants and Brochu do not think there is any.) And with reference to the declaration of Brochu holes in such DiTullio kind of thermoformed chambers have no particular shape or orientation.

(c) The declaration of Brochu, particularly at paragraphs 3 and 4, gives factual information about why there is a motivation against inward flaring slots.

(d) DiTullio filed his application six years after issuance of the Nichols ‘661 patent and the still earlier commercialization of such chambers which had down sloping axes for perforations. Thus, if there was a need in DiTullio chambers, and it was obvious to satisfy it by means of Nichols’ 1998 teaching, why would DiTullio ‘925 in 2004 describe an inferior product having round holes with no particular axis orientation or shape.

7. In fact, there is no motivation found from DiTuillio to use the slots of Kothmann or in any

other way modify the DiTullio openings. So, what examiner says cannot be a motivation to modify the DiTullio or any other chamber. The lack of any need or motivation of the kinds which examiner cites, and lack of feasible means for carrying out the combination, undercuts the rationale for the rejection based on the combination.

8. Applicants have traversed the rejection by pointing out specifically the errors in examiner's action, including that motivation is not found in the references and that there are countervailing motivations, and have provided supporting evidence. "First, there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings..." MPEP 706.02(j).

9. If examiner maintains an obviousness rejection, applicant requests that examiner specifically state where in the art cited, or in any new reference, examiner finds an articulation of the motivations which are cited and relied upon, and which reference negates the declaration evidence submitted which is now of record and shows there a motivation against combining.

If examiner maintains the rejection and is relying on common knowledge (as examiner did previously), applicant respectfully requests examiner to provide concrete evidence in the record of the source of motivations which she says make the combination obvious

10. In further support of the non-obviousness and lack of motivation is the surprising result which is achieved in reduced material and shipping cost and increased production rate, as documented in the Brochu declaration at paragraph 5.

*The combination of the references does not comprise the invention.*

11. The rejection at top of page 4 says DiTullio has curving sidewall and a multiplicity of slots 30. In response:

(a) First, there is not a curving sidewall portion in the combination of references. DiTullio,

as does Nichols, shows essentially planar sidewalls. See DiTullio's pictures, for example, Fig. 5.

(b) Second, DiTullio does not teach or show slots. DiTullio shows only round holes 30. Examiner states, as previously, and without support or response to applicants' prior arguments, that DiTullio holes are slots. Office action page 4, lines 7-8. Applicant submits that plainly the perforations are round holes, and that does not fit the definition of "slots". To address this problem, the claims are now amended to specifically recite what a slot is, so they cannot be said to be what DiTullio shows or to read on DiTullio. Since "...the prior art reference (or the references when combined) must teach or suggest all the claim limitations." MPEP 706.02(j), the rejection does not meet that criterion. (Applicant notes that the rejection is not based on putting Nichols slots on a DiTullio chamber for which there is no motivation or need from the references. Also, see the logic at 5(d) above, which is applicable.)

(c) Third, Kothmann shows a serial double flare slot, i.e., a first inward flare slot serially connected to a second inward flare slot. Thus examiner's combination of references would result in a chamber having a serial double flare slots. That is not the invention claimed, which is a single inward flare slot. If there is a reason to modify Kothmann by only using half of the slot it teaches, other than hindsight, when Kothmann is applied to DiTullio, it must be stated to support the rejection.

(d) Fourth, DiTullio teaches particles in the water flowing into the chamber and out the sidewall. Kothmann orients the slots so the narrow end is toward the source of the particles. outside the chamber. Thus, the combination of Kothmann with DiTullio would be a chamber having slots which are oriented with an outward flare, that is, like the chambers of the prior art.

*Non-analogous art is combined*

12. To combine Kothmann with DiTullio for a rejection is not valid for the following further reason. Even if there was a need or motivation for improving DiTullio chambers, an artisan

would not think to use the technology of Kothmann because Kothmann deals with a non-analogous problem. DiTullio is for flowing water (and particles contained therein) away from the chamber into the surrounding soil. Applicants' claimed invention is also to a device for carrying water outwardly. In comparison, the well screen of Kothmann is for gathering liquid which flows to the device with entrained particles, and for preventing those particles from entering with the device. One wants to keep hold back from entering particles drawn toward the device by water flow entering the device; while the other wants to move particles through perforations and away from the device by water flow exiting the device.

*There is impermissible hindsight picking and choosing*

13. Examiner must consider the prior art in its entirety, including portions which lead away. *Gore v. Garlock*, 220 USPQ 303 (Fed Cir. 1983), MPEP 2141.03 (IV). The references must be viewed without benefit of impermissible hindsight. MPEP 2141.

(a) As mentioned above, Kothmann shows a serial double flare slot. To pick only one half of the Kothmann serial double flare slot, and thus find the invention obvious, is to pick and choose in view of applicants' invention. The Kothmann reference does not teach the utility of a single slot

(b) Kothmann teaches (i) flared slots all around the device and (ii) slots which run vertically on the device in use. It is picking and choosing to have Kothmann slots run horizontally along the sidewalls of a DiTullio chamber, rather than vertically as taught by Kothmann (Col 4, lines 55-64); and to also omit having slots at the top of the chamber, versus the claimed solid top.

14. As to claims 22, 24, 30 and 33, and a flare angle of 2-12 degrees, the general conditions of an inward flare are only disclosed by the Kothmann reference. It is silent on what is the included angle. There is no suggestion that Kothmann's included angle has any function other than enabling a second serial slot opening (i.e., enabling opening 34).

Even if we were to measure the angle on the drawing as being meaningful (which applicant

does not concede is permitted), it shows about 21 degrees. That is not near applicants' claimed range.

Lastly, applicants' flare angle is claimed in combination with a horizontal slot and inwardly curving sidewall, where there is a criticality in degree of flare, as taught by the application with respect to STA (e.g., pages 6-9), which criticalities are not present for Kothmann's slot if applied to DiTuillo.

In any case, the claims 22, 24, 30 and 33 should be allowable as a preferred embodiments of a novel and nonobvious parent claim. In re Fine 5 USPQ2d 1596 (Fed Cir. 1988)

15. As to claims 25, 23 and 31 which relate to the slot interior opening height of 0.105-0.200 inch, Nichols teaches 0.25-0.35 inch perforation interior surface openings. Any teaching of optimization would be within the range of Nichols, not significantly outside it, as claimed.

At page 6, end of section 6 with respect to why slot heights of 0.105-0.200 inch are obvious, the rejection states that "The motivation would have been to effect a desired rate of discharge from the chamber." Effect in what way? Examiner must mean to affect the discharge rate downwardly, since the slot opening heights are reduced in height compared to the prior art. First, this ignores the number of slots which are present on the sidewall, and which increase in number when slots have smaller openings. Second, DiTullio says "The perforations 60 facilitate flow out of the drainfield gallery." Col. 5, line 47+ That is a teaching toward larger, not smaller, openings.

In the rejection, there is no prima facie case for obviousness. If examiner maintains this part of the rejection she is requested to state the reasoning why a prior art height of 0.25-0.35 inches teaches 0.105-0.200 inches.

In any case, the claims 25, 23 and 31 should be allowable as preferred embodiments of a novel and nonobvious parent claim.

16. With respect to claims 26, 27, 28 relative to a fin, and view examiner's page 8 comment about 37 CFR 1.111, applicants respond as follows. Applicants believe they did make more than general allegation in their prior paper but obviously it was not sufficient and thus they amplify here as follows:

Applicants do not claim only an upstanding fin. Their claim is to a chamber with a combination of features which include (a) base flange (b) upstanding fin at outer edge; (c) slots with down slope axes; and, (d) where some of the slots have axes that intersect the fin. As described in the application and as is familiar to artisans, such a chamber could not be feasibly fabricated in the prior art, i.e., without inward flare perforations. It is applicants' molding apparatus and method invention which now enables slots to be made by slides in the inner or core part of the mold. See declaration of Brochu for further support. Absent that or some other invention, the invention chamber could not be feasibly made.

The Schaflly '442 perforations are all higher than the fin at the base flange 2; and they do not have basic axes which are either downwardly sloped or which intersect the fin. There is no disclosure nor suggestion in the prior art about a chamber having perforations of any kind which perforations are at an elevation which is lower than the top of a fin. There is no motivation to put a Schaflly fin for the following reason.

The rejection states it is obvious to put a Schaflly fin on a chamber taught by the combination of DiTullio, Kothmann & Nichols and, at page 7 near end of section 8, that "The motivation would have been to facilitate anchoring of the device and to provide additional means for controlling and retaining effluent as desired."

First, applicants submit that none of the devices of the combination are anchored and that is a foreign concept here.

Second, the cited chambers are aimed at flowing water through their respective walls. Again, DiTullio says "The perforations 60 facilitate flow out of the drainfield gallery." Col. 5, line 47+. All the chambers have open bottoms, which undercuts any notion about "controlling" (limiting) flow.

Third, all the cited devices have perforations which are higher than the elevation where any fin would be; so there would be no effect of a fin on controlling effluent.

Thus, the means for controlling and retaining effluent, to which the fin allegedly adds, cannot be a motivation as examiner states. If examiner maintains an obviousness rejection, applicant requests her to specifically state where she finds the motivation for, and what are the means for, controlling.

17. With further respect to the rejection of claims 26-28 which relies on the combination of Schaflly and DiTullio: Applicant claims a solid top in combination with perforated sidewalls. Schaflly teaches perforations all around the top of the chamber. Examiner cites DiTullio as having a solid top, which is correct. But, when the Schaflly reference is combined, examiner must consider the references as a whole, which does not lead to a perforated chamber with a solid top, unless one picks and chooses from the references.

Wherefore, for multiple reasons give above, applicant requests reconsideration and allowance of their amended claims.

Respectfully submitted,  
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